

UNIVERSITY OF MINNESOTA
 SOUTHERN RESEARCH AND OUTREACH CENTER
 35838 120th Street
 Waseca, MN 56093-4521
 JANUARY 2014

Date	Air Temp.		HDD	Cumul* HDD	Precip	Cumul Precip.	Snow Depth	Soil Temperatures								Wind	Solar Radiation	
	Max.	Min.						2"		4"		8"		20"	40"			
----- °F -----						in.		° F -----								mi.	Langleys	
1	0	-9	69.5	2753.5	0.05	0.05	0.8	4	25	24	26	26	27	27	31	38	138	85
2	1	-11	70.0	2823.5	-		-	4	25	25	27	26	27	27	31	38	178	104
3	4	-20	73.0	2896.5	T		0.2	4	25	24	26	25	27	27	31	38	122	193
4	34	4	46.0	2942.5	-		-	4	26	24	27	25	27	26	31	38	442	123
5	14	-10	63.0	3005.5	-		-	4	26	22	27	24	28	26	31	37	236	156
6	-5	-23	79.0	3084.5	-		-	4	22	18	24	21	26	24	31	37	284	185
7	-7	-22	79.5	3164.0	-		-	4	18	16	21	19	24	22	30	37	226	180
8	5	-10	67.5	3231.5	-		-	4	19	17	20	19	23	22	29	37	54	182
9	3	-11	69.0	3300.5	-		-	4	18	17	19	19	22	22	29	37	108	197
10	23	3	52.0	3352.5	T		T	4	22	18	22	19	24	22	28	37	321	159
11	30	12	44.0	3396.5	0.01	0.06	T	4	25	22	25	22	26	24	28	37	148	45
12	37	18	37.5	3434.0	-		-	3	26	24	26	25	27	26	29	36	239	67
13	36	24	35.0	3469.0	-		-	3	28	26	28	26	28	27	29	36	169	105
14	33	23	37.0	3506.0	0.12	0.18	1.4	5	29	28	28	28	29	28	30	36	216	196
15	23	-4	55.5	3561.5	0.03	0.21	0.5	5	28	26	29	27	29	28	30	36	248	127
16	34	0	48.0	3609.5	0.20	0.41	1.9	6	27	26	27	27	28	28	30	36	331	160
17	29	-2	51.5	3661.0	0.02	0.43	0.4	5	27	23	28	25	28	27	30	36	332	148
18	16	-2	58.0	3719.0	0.28	0.71	3.2	7	24	22	25	24	27	26	30	36	211	217
19	24	3	51.5	3770.5	T		T	7	24	23	25	24	26	26	30	36	258	187
20	36	19	37.5	3808.0	-		-	6	27	24	27	25	27	26	29	36	199	202
21	26	-20	62.0	3870.0	0.13	0.84	1.0	6	27	26	27	27	28	27	30	36	239	92
22	10	-17	68.5	3938.5	0.02	0.86	0.6	7	26	25	27	26	27	26	30	36	227	148
23	8	-18	70.0	4008.5	T		T	7	26	22	26	24	26	25	30	35	277	186
24	17	-18	65.5	4074.0	-		-	6	22	20	24	22	25	24	29	35	292	237
25	34	3	46.5	4120.5	0.08	0.94	1.0	7	25	21	25	22	26	24	29	35	361	162
26	19	2	54.5	4175.0	0.19	1.13	2.2	8	24	23	25	25	26	26	29	35	268	236
27	19	-14	62.5	4237.5	T		0.2	7	25	19	26	23	26	25	29	35	403	134
28	-8	-20	79.0	4316.5	-		-	7	20	16	23	19	25	22	29	35	128	231
29	0	-19	74.5	4391.0	-		-	7	17	15	19	18	22	21	28	35	204	255
30	30	-4	52.0	4443.0	0.15	1.28	2.1	9	22	15	23	18	23	21	27	35	299	255
31	28	-13	57.5	4500.5	0.14	1.42	1.7	10	23	22	24	24	25	25	28	34	193	209
Total	17.8	-5.0	1816.5	4500.5	1.42	1.42	17.2		24.1	21.7	25.0	23.4	26.1	25.1			7351	5163
Avg.	6.4								22.9		24.2		25.6		29.5	36.2		
Dept. from Norma	-6.8		+1420.5	+461.5	+0.17	+0.17	+7.7		+0.1		0.0		+0.7		-2.5			+62

* Since Nov. 1, 2013

** Since Jan. 1, 2014

**UNIVERSITY OF MINNESOTA
SOUTHERN RESEARCH AND OUTREACH CENTER
35838 120th Street
Waseca, MN 56093-4521
FEBRUARY 2014**

Date	Air Temp.		Cumul*		Cumul**		Snow Depth	Soil Temperatures						Wind	Solar Radiation			
	Max.	Min.	HDD	HDD	Precip	Precip.		2"		4"		8"				20"	40"	
----- °F-----						in.-----		° F-----						mi.	Langleys			
1	10	-13	66.5	4567.0	0.01	1.43	0.2	9	23	22	24	23	25	25	28	35	161	239
2	18	-14	63.0	4630.0	T		T	9	24	23	24	24	25	25	28	34	147	230
3	11	-12	65.5	4695.5	-		-	9	23	23	24	24	25	25	28	34	144	275
4	14	-4	60.0	4755.5	-		-	9	24	23	24	24	25	25	28	34	69	218
5	9	-3	62.0	4817.5	-		-	9	24	23	25	24	25	25	28	34	254	191
6	3	-19	73.0	4890.5	-		-	9	24	23	25	24	25	25	28	34	163	237
7	2	-15	71.5	4962.0	-		-	9	23	22	24	24	25	24	28	34	260	279
8	12	-9	63.5	5025.5	-		-	9	23	22	24	23	24	24	28	34	193	294
9	16	-11	62.5	5088.0	0.03	1.46	0.5	9	23	22	24	23	25	24	28	34	65	212
10	3	-15	71.0	5159.0	-		-	9	23	22	24	24	25	25	28	34	141	293
11	1	-18	73.5	5232.5	-		-	9	22	21	24	23	25	25	28	34	82	301
12	14	-13	64.5	5297.0	0.04	1.50	0.6	9	22	21	23	23	25	24	28	34	337	289
13	24	13	46.5	5343.5	0.03	1.53	0.4	9	24	22	25	23	26	25	28	34	233	196
14	32	1	48.5	5392.0	T		T	9	25	24	25	25	26	26	28	34	277	245
15	11	-5	62.0	5454.0	-		-	9	24	23	25	24	26	26	28	33	134	305
16	19	-1	56.0	5510.0	0.27	1.80	3.7	12	24	23	25	24	26	26	28	33	203	108
17	20	-3	56.5	5566.5	0.39	2.19	4.5	14	25	24	26	25	26	26	28	33	369	294
18	33	14	41.5	5608.0	0.14	2.33	1.7	13	26	25	26	26	27	26	28	33	196	195
19	40	13	38.5	5646.5	T		-	12	27	26	27	26	28	27	29	33	115	290
20	38	16	38.0	5684.5	-		-	10	28	27	28	27	28	28	29	33	249	332
21	35	8	43.5	5728.0	0.68	3.01	7.5	14	30	28	30	28	29	28	29	33	299	54
22	17	-3	58.0	5786.0	-		-	14	30	30	30	30	30	29	30	33	219	352
23	15	-8	61.5	5847.5	-		-	13	30	29	30	30	30	30	30	33	89	360
24	14	-8	62.0	5909.5	-		-	12	29	29	30	29	30	30	30	33	119	368
25	9	-11	66.0	5975.5	T		T	12	29	29	29	29	30	29	30	33	134	318
26	6	-17	70.5	6046.0	-		-	12	29	28	29	29	29	29	30	33	207	377
27	18	-15	63.5	6109.5	-		-	12	28	28	29	28	29	29	30	33	362	360
28	2	-14	71.0	6180.5	-		-	11	28	27	28	28	29	28	# 30	33	139	393
Total	15.9	-5.9	1680.0	6180.5	1.59	3.01	19.1		25.5	24.6	26.1	25.5	26.7	26.4			5360	7605
Avg.	5.0								25.1		25.8		26.5		28.6	33.5		
Dept. from Norma	-13.5		+378.0	+839.5	+0.59	+0.76	+10.1		+0.40		0.0		+0.70		-1.4			+799

* Since Nov. 1, 2013

** Since Jan. 1, 2014

-17° on the 26th set new Lowest Min Temp-old record -13° set in 1963
2° on the 28th set new Lowest Max Temp-old record 3° set in 1962

**UNIVERSITY OF MINNESOTA
SOUTHERN RESEARCH AND OUTREACH CENTER
35838 120th Street
Waseca, MN 56093-4521
MARCH 2014**

Date	Air Temp.		Cumul*		Cumul**		Snow Depth	Soil Temperatures								Wind	Solar Radiation	
	Max.	Min.	HDD	HDD	Precip	Precip.		2"		4"		8"		20"	40"			
	° F				in.			° F		° F		° F		° F				mi.
1	15	-4	59.5	6240.0	0.21	3.22	3.3	13	27	27	28	28	28	28	30	33	233	173
2	-2	-18	75.0	6315.0	0.02	3.24	0.5	13	27	27	28	28	28	28	30	33	218	255
3	-1	-17	74.0	6389.0	-		-	12	27	27	28	28	28	28	30	33	79	404
4	11	-9	64.0	6453.0	T		0.2	12	27	27	28	27	28	28	30	33	190	282
5	18	9	51.5	6504.5	0.37	3.61	5.3	17	27	27	28	27	28	28	30	33	199	314
6	20	7	51.5	6556.0	-		-	16	28	27	28	28	29	28	30	33	250	398
7	31	15	42.0	6598.0	0.01	3.62	-	15	28	28	28	28	29	28	30	33	337	294
8	34	14	41.0	6639.0	-		-	14	28	28	29	28	29	29	30	33	229	246
9	25	6	49.5	6688.5	-		-	13	29	28	29	29	29	29	30	33	168	407
10	38	24	34.0	6722.5	-		-	12	31	28	30	29	30	29	30	33	219	336
11	46	28	28.0	6750.5	0.02	3.64	-	10	31	31	30	30	30	30	30	33	78	387
12	39	18	36.5	6787.0	0.15	3.79	-	8	31	31	31	30	31	30	31	33	231	182
13	28	18	42.0	6829.0	-		-	8	31	31	31	31	31	30	31	33	159	404
14	45	27	29.0	6858.0	-		-	7	31	31	31	31	31	31	31	33	214	444
15	40	24	33.0	6891.0	-		-	5	31	31	31	31	31	31	31	33	189	267
16	29	12	44.5	6935.5	-		-	4	32	31	31	31	31	31	31	33	237	241
17	25	12	46.5	6982.0	-		-	3	32	31	31	31	31	31	31	33	266	440
18	39	24	33.5	7015.0	T		-	3	32	32	31	31	31	31	31	33	311	341
19	37	25	34.0	7049.5	0.21	4.00	3.0	5	32	32	32	31	31	31	31	33	250	199
20	35	25	35.0	7084.5	T		T	3	32	32	32	32	31	31	31	33	133	289
21	43	25	31.0	7115.5	-		-	2	32	32	32	32	31	31	31	33	186	454
22	46	11	36.5	7152.0	-		-	2	32	32	32	32	32	31	31	33	330	289
23	22	10	49.0	7201.0	-		-	T	32	31	32	32	31	31	31	33	236	457
24	25	11	47.0	7248.0	-		-	T	32	31	32	31	31	31	31	33	50	355
25	31	11	44.0	7292.0	0.03	4.03	0.6	T	32	30	32	31	31	31	31	33	270	230
26	22	11	48.5	7340.5	-		-	T	31	26	31	31	31	31	31	33	168	368
27	43	19	34.0	7374.5	0.01	4.04	-	T	31	26	31	30	31	31	31	33	430	448
28	38	29	31.5	7406.0	0.27	4.31	T	T	32	31	31	31	31	31	31	33	261	37
29	37	24	34.5	7440.5	-		-	-	35	32	31	31	31	31	31	33	147	380
30	43	26	30.9	7471.0	-		-	-	45	32	32	31	32	31	31	34	243	527
31	61	40	14.5	7485.5	0.06	4.37	-	-	51	32	34	32	32	31	32	34	342	433
Total	31.1	14.7	1305.4	7485.5	1.36	4.37	12.9		31.6	29.7	30.5	30.1	30.3	30.0			6853	10281
Avg.	22.9								30.7		30.3		30.2		30.7	33.1		
Dept. from Normal	-8.3		+257.4	+1096.5	-1.13	-0.37	+2.7		-1.2		-1.4		-0.1		-1.7			+524

* Since Nov. 1, 2013

** Since Jan. 1, 2014

-2° on the 2nd set new Lowest Max Temp-old record 7° set in 1989, -18° on the 2nd set new Lowest Min Temp-old record -15° set in 1916, -1° on the 3rd set new Lowest Max Temp-old record 7° set in 1916, -17° on the 3rd ties Lowest Min Temp set in 1916

UNIVERSITY OF MINNESOTA
SOUTHERN RESEARCH AND OUTREACH CENTER
35838 120th Street
Waseca, MN 56093-4521
APRIL 2014

Date	Air Temp.		HDD	Cumul* HDD	Precip	Cumul** Precip.	Snow Snow	Snow Depth	Evap	Soil Temperatures						Wind	Solar Radiation		
	Max.	Min.								2"		4"		8"				20"	40"
	----- °F -----									Max	Min	Max	Min.	Max.	Min.				
1	62	20	24.0	7509.5	0.23	4.60	0.1	T		50	32	39	32	33	32	32	34	437	294
2	32	20	39.0	7548.5	-		-	-		37	32	33	32	32	32	32	34	82	343
3	42	25	31.5	7580.0	0.04	4.64	T	-		44	32	37	32	33	32	32	34	281	433
4	34	25	35.5	7615.5	0.43	5.07	2.4	1		34	32	33	32	32	32	32	34	109	57
5	39	25	33.0	7648.5	T		T	T		45	32	38	32	34	32	32	34	135	471
6	50	29	25.5	7674.0	-		-	-		51	32	41	32	36	32	32	34	277	539
7	62	41	13.5	7687.5	0.02	5.09	-	-		57	34	45	34	39	33	32	34	215	501
8	58	34	19.0	7706.5	T		-	-		58	34	47	36	41	36	32	34	168	463
9	51	30	24.5	7731.0	-		-	-		54	34	44	35	40	36	32	34	160	534
10	70	38	11.0	7742.0	-		-	-		56	33	46	35	40	35	32	34	299	533
11	59	37	17.0	7759.0	T		-	-		57	38	48	39	42	38	33	34	184	531
12	64	42	12.0	7771.0	0.06	5.15	-	-		63	38	51	38	43	38	34	34	218	529
13	58	42	15.0	7786.0	T		-	-		56	43	48	42	44	41	35	34	282	288
14	44	27	29.5	7815.5	0.18	5.33	T	T		44	33	43	35	41	36	36	34	358	84
15	36	18	38.0	7853.5	-		-	-		44	30	39	33	37	34	35	34	273	471
16	36	20	37.0	7890.5	-		-	-		50	30	40	33	36	34	35	35	223	581
17	55	29	23.0	7913.5	0.53	5.86	-	-		42	33	38	34	36	34	35	35	317	140
18	39	27	32.0	7945.5	-		-	-		43	33	39	34	37	35	35	35	80	238
19	54	33	21.5	7967.0	-		-	-		53	33	44	34	40	35	36	35	314	520
20	70	40	10.0	7977.0	0.04	5.90	-	-		56	38	47	38	44	38	37	36	212	367
21	72	54	2.0	7979.0	0.32	6.22	-	-	1.25	68	47	56	45	50	44	40	36	154	403
22	66	36	14.0	7993.0	-		-	-		64	39	56	43	51	45	42	37	193	490
23	58	40	16.0	8009.0	-		-	-		62	40	53	43	49	44	43	37	186	568
24	45	40	22.5	8031.5	0.40	6.62	-	-		43	41	45	42	45	43	43	38	368	62
25	48	33	24.5	8056.0	0.09	6.71	-	-		48	35	45	39	44	41	42	39	111	122
26	66	37	13.5	8069.5	-		-	-		63	36	52	39	48	41	42	39	191	608
27	56	40	17.0	8086.5	0.32	7.03	-	-		54	40	49	43	46	44	43	39	435	382
28	48	40	21.0	8107.5	1.83	8.86	-	-	1.24	47	40	44	41	44	43	43	39	481	84
29	45	39	23.0	8130.5	0.58	9.44	-	-		44	40	43	41	43	42	42	40	430	48
30	39	33	29.0	8159.5	0.50	9.94	T	-	0.05	42	36	42	38	42	39	42	40	282	123
Total	51.9	33.1	674.0	8159.5	5.57	9.94	2.5		2.54	51.0	35.7	44.2	36.9	40.7	37.4			7455	10807
Avg.	42.5									43.3		40.5		39.1		36.4	35.7		
Dept. from Normal	-3.6		+103.0	+1199.5	+2.36	+1.99	-0.2			-2.8		-4.3		-3.3		-4.2			-767

* Since Nov. 1, 2013

** Since Jan. 1, 2014

39° on the 30th set new Lowest Max Temp-old record 40° set in 1950

**UNIVERSITY OF MINNESOTA
SOUTHERN RESEARCH AND OUTREACH CENTER
35838 120TH STREET
WASECA, MINNESOTA 56093-4521
MAY 2014**

Date	Air Temp.		GDU	Cumul.* GDU	Cumul.**			Soil Temperatures								Wind mi.	Solar Radiation Langleys
	Max.	Min.			Precip.	Precip.	Evap.	2"		4"		8"		20"	40"		
	----- ° F -----				----- in. -----			----- ° F -----									
1	42	35	0.0	0.0	0.04	9.98	0.01	42	36	41	38	40	39	41	40	246	96
2	46	37	0.0	0.0	T			47	38	44	39	42	40	40	40	166	197
3	58	36	4.0	4.0	-			54	37	48	41	45	41	41	40	194	326
4	59	36	4.5	8.5	T			60	37	51	40	47	42	42	40	176	559
5	56	38	3.0	11.5	-		0.56	61	40	52	43	48	44	43	40	122	438
6	65	44	7.5	19.0	-			72	44	59	46	53	46	44	41	205	581
7	67	45	8.5	27.5	0.14	10.12		63	46	57	48	53	48	46	41	370	458
8	71	48	10.5	38.0	0.11	10.23		65	49	59	51	54	50	47	42	332	422
9	75	47	12.5	50.5	0.31	10.54		66	52	60	53	56	52	48	42	296	283
10	58	39	4.0	54.5	T			58	42	54	47	54	49	49	43	208	255
11	65	45	7.5	62.0	0.02	10.56		59	42	54	46	52	48	48	43	231	348
12	73	52	12.5	74.5	1.42	11.98	1.51	69	49	59	50	57	50	49	44	189	324
13	61	43	5.5	80.0	0.12	12.10		61	47	58	51	56	52	51	44	218	105
14	53	33	1.5	81.5	T			56	39	53	44	52	48	50	45	168	267
15	59	36	4.5	86.0	T			66	39	57	44	53	47	49	45	178	577
16	49	34	0.0	86.0	-			60	41	54	46	51	48	49	45	179	343
17	52	34	1.0	87.0	-			61	40	55	45	52	47	48	45	83	404
18	66	38	8.0	95.0	-			72	40	61	45	55	47	49	45	165	602
19	72	45	11.0	106.0	T		1.18	76	46	64	50	57	50	50	46	315	652
20	61	50	5.5	111.5	0.38	12.48		56	50	56	52	55	53	51	46	241	66
21	73	53	13.0	124.5	-			69	51	62	52	58	52	51	46	75	339
22	65	45	7.5	132.0	-			70	50	64	54	59	55	52	46	157	610
23	71	47	10.5	142.5	-			83	50	70	53	62	54	53	47	97	709
24	79	53	16.0	158.5	-			85	53	73	57	65	57	55	47	116	678
25	81	55	18.0	176.5	-			83	59	72	61	66	61	56	48	188	567
26	79	59	19.0	195.5	T		1.41	75	59	69	61	65	61	57	49	228	375
27	85	63	24.0	219.5	0.11	12.59		84	64	73	64	67	63	58	49	146	345
28	75	60	17.5	237.0	0.22	12.81		77	61	70	63	66	63	59	50	197	288
29	81	57	19.0	256.0	-			84	59	74	63	67	63	60	51	146	557
30	86	61	23.5	279.5	-			90	59	78	62	70	62	60	51	203	683
31	90	68	27.0	306.5	-		1.43	91	66	80	67	73	66	62	52	226	590
Totals	66.9	46.3	306.5	306.5	2.87	12.81	6.10	68.2	47.9	61.3	50.8	56.5	51.5	44.9	6061	13044	
Avg.	56.6							58.1		56.1		54.0	50.3				
Dept. from normal	-2.1		-25.5	-25.5	-1.06	+0.93	-1.42	-2.3		-2.5		-1.8	-3.5				-1335

* Since May 1, 2014

** Since January 1, 2014

49° on the 16th tied Lowest Max Temp - record set in 1970

UNIVERSITY OF MINNESOTA
 SOUTHERN RESEARCH AND OUTREACH CENTER
 35838 120TH STREET
 WASECA, MINNESOTA 56093-4521
 JUNE 2014

Date	Air Temp.		GDU	Cumul.* GDU	Cumul.** Precip.	Precip. in.	Evap.	Soil Temperatures								Wind mi.	Solar Radiation Langleys
	Max.	Min.						2"		4"		8"		20"	40"		
	----- ° F -----																
1	85	65	25.0	331.5	2.35	15.16	0.48	83	67	75	68	72	69	64	52	271	426
2	70	62	16.0	347.5	1.07	16.23	0.13	68	63	68	64	69	65	64	53	170	53
3	77	52	14.5	362.0	-			79	57	72	62	68	64	63	54	276	588
4	72	56	14.0	376.0	-			77	57	72	62	68	63	63	55	89	493
5	79	58	18.5	394.5	-			87	62	78	65	71	65	63	55	115	614
6	76	57	16.5	411.0	0.02	16.25		78	61	72	64	69	65	64	55	167	426
7	85	61	23.0	434.0	0.84	17.09		94	61	81	64	73	65	64	56	128	643
8	62	50	6.0	440.0	0.02	17.11		69	54	71	59	70	62	65	56	208	175
9	71	54	12.5	452.5	T		1.89	80	54	72	59	67	62	63	56	148	692
10	70	58	14.0	466.5	T			76	60	70	63	66	63	63	56	143	329
11	77	59	18.0	484.5	-			82	60	73	62	68	63	62	56	111	433
12	82	56	19.0	503.5	T			93	63	79	65	73	65	63	57	145	605
13	64	46	7.0	510.5	-			80	57	74	63	69	65	65	57	180	517
14	77	51	14.0	524.5	-			88	57	78	62	71	64	64	57	155	643
15	66	57	11.5	536.0	2.02	19.13		66	58	68	61	68	61	64	57	316	56
16	75	58	16.5	552.5	T		1.69	76	58	69	61	66	61	63	57	281	537
17	81	61	21.0	573.5	2.56	21.69		75	59	69	62	66	63	63	58	327	366
18	78	62	20.0	593.5	2.16	23.85		75	61	70	63	67	63	63	58	180	369
19	82	66	24.0	617.5	0.67	24.52		81	65	74	66	70	66	64	58	306	530
20	76	64	20.0	637.5	0.53	25.05		75	67	70	67	68	67	65	58	205	203
21	84	64	24.0	661.5	-			88	67	77	67	72	67	65	59	126	673
22	84	66	25.0	686.5	-			97	68	84	69	76	69	66	59	66	687
23	78	62	20.0	706.5	T		2.84	85	68	79	70	74	71	68	59	68	353
24	81	61	21.0	727.5	-			93	68	82	70	76	70	68	60	65	569
25	82	63	22.5	750.0	-			96	68	85	71	78	71	69	60	81	649
26	76	62	19.0	769.0	-			97	70	85	73	78	73	70	61	129	645
27	84	65	24.5	793.5	0.08	25.13		91	70	82	73	77	73	70	61	222	507
28	79	68	23.5	817.0	T			83	72	78	73	75	73	70	61	301	373
29	85	61	23.0	840.0	0.61	25.74		86	65	78	69	75	71	70	62	259	328
30	80	64	22.0	862.0	0.01	25.75		79	65	75	68	72	69	69	62	196	591
Totals	77.3	59.6	555.5	862.0	12.94	25.75	7.03	82.6	62.7	75.3	65.5	71.1	66.3			5434	14073
Avg.	68.5							72.7		70.4		68.7		65.2	57.5		
Dept. from normal	0.0		+17.5	-8.0	+8.25	+9.18		+0.9		+0.6		+1.8		+1.4			-1457

* Since May 1, 2014 ** Since January 1, 2014

UNIVERSITY OF MINNESOTA
SOUTHERN RESEARCH AND OUTREACH CENTER
35838 120TH STREET
WASECA, MINNESOTA 56093-4521
JULY 2014

Date	Air Temp.		GDU	Cumul.* GDU	Cumul.**			Soil Temperatures								Wind mi.	Solar Radiation Langleys
	Max.	Min.			Precip.	Precip.	Evap.	2"		4"		8"		20"	40"		
	----- ° F -----				----- in. -----			----- ° F -----									
1	74	61	17.5	879.5	0.04	25.79	0.09	73	62	71	65	70	67	68	62	271	185
2	71	54	12.5	892.0	0.15	25.94		74	59	70	63	68	65	67	62	170	365
3	72	51	11.5	903.5	-			83	59	74	62	69	64	66	62	276	586
4	76	54	15.0	918.5	-			87	60	77	64	71	64	66	62	89	600
5	79	60	19.5	938.0	0.12	26.06		88	62	78	66	72	67	67	62	115	633
6	79	66	22.5	960.5	-			87	66	78	68	73	68	67	62	167	578
7	89	59	22.5	983.0	-		1.40	88	68	80	71	75	71	68	62	128	438
8	86	59	22.5	1005.5	0.16	26.22		92	65	82	70	76	71	69	62	208	568
9	76	52	14.0	1019.5	-			87	63	79	68	74	70	69	62	148	651
10	79	56	17.5	1037.0	-			92	63	82	68	76	69	69	62	143	648
11	83	62	22.5	1059.5	0.04	26.26		90	67	81	71	76	71	70	63	257	571
12	82	64	23.0	1082.5	0.16	26.42		85	69	77	72	74	72	70	63	200	398
13	77	61	19.0	1101.5	0.06	26.48		83	66	77	69	73	70	70	63	109	294
14	77	51	14.0	1115.5	-		1.75	92	64	82	69	76	70	69	63	130	662
15	65	51	8.0	1123.5	-			81	61	75	66	72	68	69	63	234	489
16	69	47	9.5	1133.0	-			81	60	75	66	71	67	68	63	130	476
17	76	52	14.0	1147.0	-			87	60	78	65	73	67	68	63	78	548
18	78	54	16.0	1163.0	-			90	63	79	67	74	68	68	63	121	606
19	78	60	19.0	1182.0	-			82	66	76	69	73	69	69	63	222	440
20	80	66	23.0	1205.0	-			84	68	77	70	73	70	69	63	246	438
21	85	71	28.0	1233.0	-		2.16	93	72	82	72	76	71	69	63	252	584
22	90	72	29.0	1262.0	-			98	75	86	75	79	74	71	64	218	555
23	83	60	21.5	1283.5	-			97	71	87	75	81	76	72	64	158	597
24	81	57	19.0	1302.5	-			98	70	87	75	80	75	73	64	93	662
25	80	60	20.0	1322.5	0.31	26.79		92	69	83	74	78	74	73	65	192	492
26	80	64	22.0	1344.5	T			85	69	79	72	76	73	72	65	155	444
27	82	61	21.5	1366.0	0.12	26.91		83	65	78	70	75	72	72	65	143	350
28	74	57	15.5	1381.5	0.03	26.94	1.46	81	65	76	69	73	70	71	65	184	398
29	73	51	12.0	1393.5	-			83	63	77	68	73	69	70	65	103	408
30	77	52	14.5	1408.0	-			90	63	80	67	75	69	70	65	105	615
31	79	54	16.5	1424.5	-		0.60	91	65	82	69	76	70	70	65	83	580
Totals	78.4	58.0	562.5	1424.5	1.19	26.94	7.46	87.0	65.1	78.9	68.9	74.2	69.7			5128	15859
Avg.	68.2							76.0		73.9		72.0		69.3			
Dept. from normal	-3.8		-92.5	-100.5	-3.23	+5.95	-0.44	-3.6		-2.8		-1.9		-1.6			-779

* Since May 1, 2014 ** Since January 1, 2014 **65° on the 15th set new Lowest Max Temp-old record 69° set in 1981**

**UNIVERSITY OF MINNESOTA
SOUTHERN RESEARCH AND OUTREACH CENTER
35838 120TH STREET
WASECA, MINNESOTA 56093-4521
AUGUST 2014**

Date	Air Temp.		GDU	Cumul.* GDU	Precip.	Cumul.** Precip.	Evap.	Soil Temperatures								Wind	Solar Radiation
	Max.	Min.						2"		4"		8"		20"	40"		
	° F							Max.	Min.	Max.	Min.	Max.	Min.	° F			
1	80	55	17.5	1442.0	-		0.22	92	66	82	70	77	71	71	65	72	578
2	82	56	19.0	1461.0	-			93	67	83	71	78	72	71	65	68	567
3	83	60	21.5	1482.5	-			96	70	85	73	79	73	72	65	75	563
4	86	63	24.5	1507.0	-		0.71	99	72	87	75	81	74	73	66	66	614
5	83	63	23.0	1530.0	0.35	27.29		93	68	84	73	79	74	74	66	113	459
6	78	62	20.0	1550.0	-			88	68	81	72	77	73	73	66	118	475
7	79	60	19.5	1569.5	-			88	67	81	72	77	72	72	66	137	462
8	80	61	20.5	1590.0	0.05	27.34		86	67	80	71	76	72	72	67	149	467
9	79	64	21.5	1611.5	-			85	70	78	72	75	73	72	67	132	329
10	81	63	22.0	1633.5	-			89	69	81	72	77	72	72	67	140	479
11	82	64	23.0	1656.5	0.01	27.35	1.24	92	70	82	73	78	73	72	67	136	461
12	76	53	14.5	1671.0	-			82	65	77	70	75	72	72	67	174	311
13	76	53	14.5	1685.5	-			90	65	80	69	76	71	72	67	116	620
14	82	54	18.0	1703.5	-			91	66	82	70	77	71	72	67	140	529
15	80	60	20.0	1723.5	0.02	27.37		92	69	82	72	77	73	72	67	128	535
16	80	62	21.0	1744.5	-			92	72	82	74	78	74	72	67	137	476
17	81	63	22.0	1766.5	-			85	71	80	74	77	74	73	67	61	289
18	85	65	25.0	1791.5	0.03	27.40	1.36	90	71	82	73	78	74	73	67	157	450
19	87	62	24.0	1815.5	0.04	27.44		96	72	86	75	80	75	73	67	142	554
20	81	58	19.5	1835.0	-			89	70	82	74	79	75	74	67	100	428
21	84	62	23.0	1858.0	0.79	28.23		90	70	82	73	78	74	73	67	145	438
22	87	69	27.5	1885.5	0.03	28.26		86	73	80	75	77	75	74	68	146	464
23	83	67	25.0	1910.5	-			88	71	81	74	78	75	73	68	123	375
24	83	68	25.5	1936.0	0.20	28.46		85	71	79	73	76	73	73	68	191	342
25	88	63	24.5	1960.5	0.02	28.48	1.61	92	70	82	73	78	73	73	68	144	470
26	78	56	17.0	1977.5	-			93	67	84	73	79	74	73	68	113	502
27	73	55	14.0	1991.5	0.01	28.49		91	67	82	71	77	73	73	68	89	504
28	75	60	17.5	2009.0	-			87	68	80	72	76	73	73	68	115	429
29	70	60	15.0	2024.0	0.82	29.31		71	68	72	69	73	70	72	68	184	114
30	80	66	23.0	2047.0	0.78	30.09		80	68	75	69	73	70	71	68	130	303
31	76	60	18.0	2065.0	0.02	30.11	1.63	82	64	76	68	73	70	71	68	117	374
Totals	80.6	60.9	640.5	2065.0	3.17	30.11	6.77	88.8	68.8	80.9	72.1	77.1	72.8			3858	13961
Avg.	70.7							78.8		76.5		75.0		72.5			
Dept. from normal	+0.9		+43.5	-57.0	-1.58	+4.37	+0.40	+3.3		+2.0		+2.4		+1.6			-214

* Since May 1, 2014 ** Since January 1, 2014

UNIVERSITY OF MINNESOTA
SOUTHERN RESEARCH AND OUTREACH CENTER
35838 120TH STREET
WASECA, MINNESOTA 56093-4521
SEPTEMBER 2014

Date	Air Temp.		GDU	Cumul.* GDU	Cumul.** Precip.	Evap.	Soil Temperatures						Wind	Solar Radiation			
	Max.	Min.					2"		4"		8"				20"	40"	
	----- °F -----						----- ° F -----						mi.	Langleys			
1	82	62	22.0	2087.0	0.45	30.56	0.19	77	64	73	68	72	69	70	68	213	311
2	75	57	16.0	2103.0	0.04	30.60		81	63	75	66	72	68	70	67	111	410
3	76	57	16.5	2119.5	T			82	62	76	66	71	67	69	67	138	520
4	83	62	22.5	2142.0	-			82	63	75	66	72	67	69	67	197	371
5	85	55	20.0	2162.0	T			85	65	79	70	75	71	70	67	185	351
6	63	43	6.5	2168.5	-			73	56	71	62	72	66	70	67	106	218
7	75	45	12.5	2181.0	-			84	55	75	61	71	65	68	67	100	504
8	74	50	12.0	2193.0	T		1.22	83	59	74	64	71	66	68	67	175	524
9	72	59	15.5	2208.5	-			82	62	74	65	70	66	68	66	184	384
10	72	61	16.5	2225.0	0.20	30.80		73	66	70	67	69	68	68	66	142	118
11	61	45	5.5	2230.5	0.03	30.83		66	52	67	58	68	61	67	66	232	133
12	56	44	3.0	2233.5	0.06	30.89		63	52	62	56	62	59	65	66	130	284
13	53	31	1.5	2235.0	T			60	44	59	51	60	56	63	65	71	207
14	61	31	FROST	FROST	-			72	43	63	50	60	54	62	65	165	508
15	67	46			0.20	31.09	0.97	76	53	67	56	63	58	62	64	114	417
16	62	36			0.02	31.11		66	46	63	53	61	57	62	64	79	307
17	67	36			-			74	46	65	52	61	56	61	63	120	483
18	74	49			-			76	55	68	58	64	59	61	63	75	367
19	75	49			-			79	55	70	59	66	60	62	63	159	452
20	84	58			0.24	31.35		79	59	71	62	67	62	63	62	296	386
21	79	51			0.85	32.20		79	55	72	60	68	62	64	62	177	398
22	65	41			-		1.25	68	51	65	56	63	59	63	63	135	395
23	72	41			-			74	50	66	56	63	58	62	63	90	457
24	74	49			0.21	32.41		73	52	66	57	63	59	62	62	174	373
25	66	56			0.02	32.43		64	58	62	60	62	61	62	62	184	147
26	76	58			-			72	58	67	60	64	60	62	62	117	289
27	81	60			-			80	60	71	61	67	62	62	62	177	412
28	82	57			-			80	61	72	63	68	64	64	62	125	338
29	82	56			-		1.00	81	61	73	63	69	64	64	62	99	358
30	65	42			-		0.14	76	54	70	59	67	62	65	62	195	264
Totals	72.0	49.6	170.0	2235.0	2.32	32.43	4.77	75.3	56.0	69.2	60.2	66.7	62.2			4465	10686
Avg.	60.8							65.7		64.7		64.5		64.9			
Dept. from normal	-0.5		-178.0	-235.0	-1.35	+3.02	-0.14	+0.5		-0.2		+0.4		-0.4			-30

* Since May 1, 2014

** Since January 1, 2014

31° on the 13th tied Lowest Min. Temp set in 1975, 31° on the 14th set new Lowest Min
Temp - old record 32° set in 1929

UNIVERSITY OF MINNESOTA
 SOUTHERN RESEARCH AND OUTREACH CENTER
 35838 120th Street
 Waseca, MN 56093-4521
 OCTOBER 2014

Date	Air Temp.		Precip	Cumul** Precip.	Snow Depth	Soil Temperatures						Wind	Solar Radiation		
	Max.	Min.				2"		4"		8"				20"	40"
	° F					Max	Min	Max	Min.	Max.	Min.			20"	40"
1	62	42	0.17	32.60		65	54	63	58	62	60	64	62	243	202
2	60	50	0.68	33.28		60	55	60	58	61	59	62	62	116	61
3	59	43	0.18	33.46		60	50	60	55	60	57	61	62	179	55
4	46	34	-			51	40	55	46	57	51	60	62	304	146
5	49	29	-			56	39	53	45	52	49	57	61	137	361
6	49	31	T			50	39	50	45	51	48	55	61	103	158
7	61	31	T			59	38	54	44	52	48	54	60	175	327
8	61	34	-			61	43	56	48	54	50	54	59	156	274
9	61	33	-			65	42	58	47	55	50	55	59	140	375
10	55	29	-			64	42	58	48	55	51	55	58	91	343
11	54	28	-			62	40	56	46	53	50	54	58	68	342
12	58	28	-			64	39	56	45	53	48	54	58	111	372
13	61	39	-			62	43	55	47	53	49	54	57	205	310
14	55	47	0.29	33.75		56	49	54	52	54	53	54	57	183	54
15	63	40	-			60	43	56	48	54	51	54	57	218	321
16	66	39	-			64	42	57	47	53	50	54	57	111	360
17	73	41	-			64	43	57	47	54	49	54	57	225	311
18	51	40	-			54	46	54	49	53	51	54	57	226	75
19	55	36	-			62	45	56	48	53	50	54	56	115	260
20	69	39	-			62	45	56	48	54	50	54	56	188	285
21	65	38	-			64	45	57	49	54	51	54	56	129	328
22	62	39	-			61	44	56	48	54	50	54	56	205	324
23	61	40	0.04	33.79		58	44	54	48	53	50	54	56	288	198
24	69	46	-			65	49	59	51	56	53	54	56	115	239
25	69	43	-			60	47	56	51	55	52	54	56	117	127
26	64	30	-			61	42	57	48	54	51	54	56	123	301
27	63	40	-			57	42	54	47	53	49	54	56	225	228
28	66	36	-			61	44	57	49	54	51	54	56	177	224
29	46	33	T			48	41	49	46	52	48	53	55	303	57
30	44	33	-			52	40	49	45	49	47	52	55	118	173
31	49	25	T			51	37	47	40	46	42	48	54	232	87
Total	58.9	36.6	1.36	33.79	0.0		59.3	43.6	55.5	48.2	54.0	50.6		5326	7278
Avg.	47.8						51.5		51.8		52.3		54.9	57.7	
Dept. from Norma	-0.4		-1.31	+1.71	0.6		+1.7		+1.3		+1.5		-0.5		-144

**UNIVERSITY OF MINNESOTA
SOUTHERN RESEARCH AND OUTREACH CENTER
35838 120th Street
Waseca, MN 56093-4521
November 2014**

Date	Air Temp.		Cumul*		Cumul**		Snow Depth	Soil Temperatures								Wind	Solar Radiation	
	Max.	Min.	HDD	HDD	Precip	Precip.		2"	4"		8"		20"	40"				
	----- °F -----																	mi.
1	39	20	35.5	35.5	-				47	32	45	38	45	42	50	55	129	292
2	44	22	32.0	67.5	-				45	32	42	37	43	41	48	54	312	241
3	58	36	18.0	85.5	T				51	37	47	40	46	42	48	54	301	238
4	54	37	19.5	105.0	0.06	33.85			49	41	48	44	47	45	48	53	238	66
5	57	27	23.0	128.0	-				52	37	48	41	47	44	48	53	186	268
6	48	32	25.0	153.0	0.02	33.87			46	39	45	41	45	44	48	53	219	70
7	41	28	30.5	183.5	-				46	36	45	40	45	42	48	52	171	198
8	49	32	24.5	208.0	0.02	33.89			43	36	43	40	44	42	47	52	330	74
9	41	32	28.5	236.5	-				45	37	44	41	44	43	47	52	210	194
10	41	30	29.5	266.0	T		T		43	36	43	39	43	42	46	52	217	82
11	34	22	37.0	303.0	0.11	34.00	1.2	1	37	32	39	36	42	39	46	51	362	16
12	24	13	46.5	349.5	T		0.2	1	33	30	36	34	39	37	44	51	244	97
13	23	14	46.5	396.0	0.02	34.02	0.4	1	31	29	34	33	37	36	43	51	198	127
14	21	2	53.5	449.5	T		T	1	31	25	33	32	36	35	42	50	200	125
15	21	2	53.5	449.5	-		-	1	31	24	32	30	35	33	41	49	63	232
16	22	4	52.0	503.0	0.23	34.25	2.5	3	30	25	31	30	33	33	40	49	189	86
17	13	0	58.5	555.0	T		T	3	30	29	31	31	33	33	39	48	237	244
18	12	2	58.0	671.5	0.02	34.27	0.4	3	29	28	31	31	33	32	39	48	253	174
19	22	3	52.5	724.0	T		0.2	3	30	29	31	31	32	32	38	47	252	165
20	23	1	53.0	777.0	T		T	3	30	28	31	31	32	32	38	47	235	160
21	17	-2	57.5	834.5	-		-	3	29	27	31	30	32	32	38	46	111	227
22	34	9	43.5	878.0	T		-	1	30	27	31	30	32	32	37	46	402	169
23	51	34	22.5	900.5	0.01	34.28	-	-	36	30	32	31	32	32	37	46	296	43
24	50	21	29.5	930.0	0.06	34.34	T	T	39	33	35	32	33	32	37	45	269	20
25	21	7	51.0	981.0	0.02	34.36	0.4	T	33	24	34	31	33	33	37	45	267	50
26	27	6	48.5	1029.5	0.11	35.37	1.4	1	30	24	31	31	33	32	37	45	200	190
27	25	-12	58.5	1088.0	0.36	35.73	4.5	5	30	28	31	31	33	32	37	45	207	90
28	13	-17	67.0	1155.0	0.05	35.78	0.5	4	30	30	31	31	33	32	37	44	187	213
29	26	13	45.5	1200.5	T		-	3	31	30	32	31	33	32	37	44	246	106
30	38	11	40.5	1241.0	-		-	2	31	31	32	32	33	33	37	44	220	188
Total	33.0	14.3	1241.0	1241.0	1.09	35.78	11.7		36.6	30.9	36.6	34.3	37.6	36.4			6951	4445
Avg.	23.6								33.7		35.5		37.0		42.0	49.0		
Dept. from Norma	-9.1		+272.0	+272.0	-1.07	+1.54	+3.9		-1.8		-1.6		-1.0		-1.7			-40

* Since Nov. 1, 2014 ** Since Jan. 1, 2014 22° on the 16th tied Lowest Max temp set in 1955, 13° on the 17th set new Lowest Max Temp.-old record 14° set in 1959, 12° on the 18th set new Lowest Max Temp - old record 20° set in 1927, 13° tied Lowest Max Temp set in 1930, -17° set new Lowest Min Temp-old record -16° set in 1952

**UNIVERSITY OF MINNESOTA
SOUTHERN RESEARCH AND OUTREACH CENTER
35838 120th Street
Waseca, MN 56093-4521
DECEMBER 2014**

Date	Air Temp.		Cumul*		Cumul**		Snow Depth	Soil Temperatures								Wind	Solar Radiation	
	Max.	Min.	HDD	HDD	Precip	Precip.		2"		4"		8"		20"	40"			
	----- °F-----						----- in.-----		----- ° F-----								mi.	Langleys
1	12	-9	63.5	1304.5	-	-	2	31	28	32	31	33	32	37	44	205	188	
2	14	-9	62.5	1367.0	-	-	2	28	27	31	30	32	32	36	44	226	207	
3	24	5	50.5	1417.5	T		T	2	29	27	30	29	32	31	36	43	203	97
4	22	9	49.5	1467.0	-	-	2	28	26	29	29	31	31	36	43	160	192	
5	32	18	40.0	1507.0	-	-	2	30	28	30	29	31	31	36	43	271	194	
6	31	18	40.5	1547.5	-	-	2	30	29	31	30	32	31	35	43	127	54	
7	31	17	41.0	1588.5	-	-	2	30	29	31	30	32	31	35	43	200	187	
8	34	27	34.5	1623.0	0.03	34.91	T	1	31	29	31	30	32	31	35	42	344	83
9	34	19	38.5	1661.5	T		T	1	31	29	31	31	32	32	35	42	266	23
10	27	18	42.5	1704.0	-	-	1	30	29	31	30	32	31	35	42	127	142	
11	29	25	38.0	1742.0	-	-	1	30	29	31	30	31	31	35	42	185	44	
12	34	26	35.0	1777.0	-	-	1	31	30	31	31	32	31	35	42	211	39	
13	39	33	29.0	1806.0	-	-	T	32	31	31	31	32	32	35	42	254	45	
14	50	39	20.5	1826.5	T		-	37	32	33	31	32	32	35	42	258	70	
15	51	46	16.5	1843.0	0.01	34.92	-	43	37	41	33	39	32	35	41	207	17	
16	47	22	30.5	1873.5	0.18	35.10	0.4	T	44	34	42	36	40	38	38	41	261	23
17	22	8	50.0	1923.5	0.01	35.11	0.3	T	34	27	36	32	38	35	38	42	224	53
18	20	7	51.5	1975.0	-	-	-	T	30	24	32	30	35	33	37	42	98	172
19	24	12	47.0	2022.0	T		T	T	30	24	31	30	33	32	37	42	103	114
20	29	24	38.5	2060.5	T		-	-	30	28	31	30	32	32	36	42	202	37
21	33	29	34.0	2094.5	T		-	-	31	30	31	31	32	32	37	42	220	24
22	38	33	29.5	2124.0	0.02	35.13	-	-	32	31	32	31	32	32	35	42	320	17
23	36	33	30.5	2154.5	0.17	35.30	0.3	T	32	32	32	32	33	32	35	41	284	29
24	34	33	31.5	2186.0	0.06	35.36	0.5	T	32	32	32	32	33	33	35	41	233	27
25	34	27	34.5	2220.5	-	-	-	-	32	32	32	32	33	33	35	41	234	29
26	36	29	32.5	2253.0	0.24	35.60	2.8	3	32	32	32	32	33	33	35	41	179	87
27	32	22	38.0	2291.0	-	-	-	2	32	32	32	32	33	33	35	41	239	24
28	22	4	52.0	2343.0	-	-	-	2	32	32	33	32	33	33	35	41	156	151
29	21	5	52.0	2395.0	-	-	-	2	31	29	32	31	33	33	35	41	131	181
30	8	-11	66.5	2461.5	-	-	-	2	29	20	31	29	33	32	35	41	138	175
31	0	-12	71.0	2532.5	-	-	-	2	22	16	29	24	32	29	35	41	177	191
Total	29.0	17.6	1291.5	2532.5	0.72	35.60	4.3		31.5	28.9	32.1	30.7	33.0	32.1			6443	2916
Avg.	23.3								30.2		31.4		32.6		35.6	41.9		
Dept. from Norma	+5.5		-171.5	+100.5	-0.76	-0.12	-8.7		+3.4		+2.9		+2.7		-0.4			-1046

* Since Nov. 1, 2014

** Since Jan. 1, 2014